

reprint -013

Date: Monday, 05/11/2007 2:31:54 PM
User: Linda Lacelle

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : MID TUBE ASSEMBLY
Job Number : 32235	
Estimate Number : 10469	
P.O. Number : N/A	Part Number : D3391013
This Issue : 05/11/2007 S.O. No. : N/A	Drawing Number : D3391 REV F
Prsht Rev. : NC	Project Number : N/A
First Issue : 07/05/2007 Type : LANDING GEAR	Drawing Revision : F
Previous Run : 32234	Material : N/A
Written By : <u>W</u>	Due Date : 10/06/2007 Qty: 1 Um: Each
Checked & Approved By : _____	
Comment : Est. A 05.10.20 New Issue KJ/EC	
Est. B 06.02.10 ECN773 dwg rev.D EC	
est C 07.03.20 rev F dwg EC	
est D 07.03.28 re-format EC	

Tubes

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D25001100	Skidtube Extrusion
-----	-----------	--------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

SKIDTUBE EXTRUSION

Pick:

Qty	Part Number	Description	Batch
1	D2500-1-100	Extrusion	

see attached pg 1

2.0	D3391011	Fwd Tube Assembly
-----	----------	-------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Fwd Tube Assembly

Batch: _____

3.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1
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Comment: LANDING GEAR RESOURCE 1

1-Cut tube to finish length as per Dwg D3391

2-Identify as D3391-023

3-Drill pilot holes using DT8796 (Do not drill "B" holes) and drill only 1 fwd saddle hole on one side only as per Dwg D3391

4-Open float bag holes 0.257" as per Dwg D3391

5-C'sink float bag holes as per Dwg D3391

6-Open remaining holes to Ø0.375" except for fwd saddle hole of detail "J"

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 05/11/2007 2:31:54 PM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 32235

Part Number: D3391013

Job Number:



Seq. #:

Machine Or Operation:

Description :

7-Remove .030" from Fwd indexing Ridge as per Dwg D3391

8-Remove indexing ridge on Fwd & Aft end of skidtube as per Dwg D3391

9-Deburr

10-Drill #30 pilot holes using wearplate Jig DT8217 Identify Ø0.250" holes with paint marker,

11-Open wearplate holes of D3391-023 assembly detail section G-G to Ø0.250" (14 holes) as per Dwg D3391 and 2 holes in section Detail "J", do not open wearplate holes of section "J"

12-Open wearplate holes of D3391-023 assembly detail section H-H to Ø0.257" and c'sink (20 holes) as per Dwg D3391

13-Open .375" holes to .438" ***do not open fwd saddle holes***

14-Locate D3391-021 in D3391-023 at 9.00" (see view z-z)

15- Transfer drill one fwd saddle hole only to .188" dia, transfer drill all remaining fwd saddle holes using DT 8149 locating from previously drill .188" dia hole, using t-pins and clicos to ensure perfect allingment, open up previously tranfer drilled pilot holes in D3391-023/-021 to 0.438" dia. in D3391-021

16- Transfer drill 2 wearplate holes into D3391-021 using DT8217, locating from two previously drilled holes, drill remaining wearplate holes into D3391-021.

17- Locating from two fwd wearplate holes drillol remaining 6 wearplte holes in D3391-021 using DT8937

18- Open 2 fwd wearplate holes in D3391-023 to .250" dia.

19- Open 12 wearplate holes in D3391-021 to 0.257" dia.

20-Deburr and blow out all chips from inside tube

4.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Cut tube to finish length as per Dwg D3391

2-Drill pilot holes including "B" holes using DT8796 as per Dwg D3391

3-Open float bag holes as per Dwg D3391

4-C'sink float bag holes as per Dwg D3391

DP
7-11-5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 05/11/2007 2:31:54 PM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 32235

Part Number: D3391013

Job Number:



Seq. #:

Machine Or Operation:

Description :

- 5-Open remaining holes as per dwg D3391
- 6- Locate electric step holes 41.0000" from fwd end and drill using DT 8393
***** ensure step holes are on top of tube not bottom Pat*****
- 7- Open electric step holes 0.332" per dwg D3391 (section L-L)
- 8- Open electric step holes 0.250" per dwg D3391 (section M-M)
- 9- Open electric step holes 0.250" per dwg D3391 (section LL-LL)
- 10-Remove .030" from Fwd indexing Ridge as per Dwg D3391
- 11-Remove indexing ridge on Fwd & Aft end of skidtube as per Dwg D3391
- 12-Deburr
- 13-Drill #30 pilot holes using wearplate Jig DT8217 Identify Ø0.208" holes with paint marker
- 14-Open wearplate holes of D3391-013 assembly detail section G-G to Ø0.250" (14 holes) as per Dwg D3391
- 15-Open wearplate holes of D3391-013 assembly detail section H-H to Ø0.257" and c'sink (20 holes) as per Dwg D3391
- 16-Open .375" holes to .438"
- 17- insert D3391-011 and clico in place with wearplate holes, transfer drill saddle holes as per dwg D3391.
- 18-Deburr and blow out all chips from inside tube

5.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

5 07/16/06

6.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

H 7-11-6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 05/11/2007 2:31:54 PM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 32235

Part Number: D3391013

Job Number:



Seq. #:

Machine Or Operation:

Description :

7.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

BE 07-11-06

8.0

D33891

Web



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

WEB

Pick:

Qty

Part Number

Description

Batch

1

D3389-1

Web

B 32629

A/R

Sikaflex-241/-291

M 105448

Sikaflex expire date:

8-7-1

Start: 7-11-6 Time: 10:10

Finish: 07/11/07 Time: 6:00 AM

H 7-11-6

9.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

2-Bond web in place as per Dwg D3391 & QSI 015.

Adhere for 12 hours)

H 7-11-6

10.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S. Salazar

11.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

PRESSURE WASH BR 07-11-07
M10594

BR 07-11-07

12.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

M. L. 07/11/07

(IX)

13.0

NAS1330C3KB116

Insert



Comment: Qty.: 24.0000 Each(s)/Unit Total: 24.0000 Each(s)

Insert

Pick:

Qty

Part Number

Description

Batch

20

NAS1330C3KB116

Insert

M 104575

07/11/07

(IX)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 05/11/2007 2:31:54 PM
User: *Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 32235

Part Number: D3391013

Job Number:



Seq. #:

Machine Or Operation:

Description :

14.0

NAS1330C3KB166

INSERT



Comment: Qty.: 24.0000 Each(s)/Unit Total : 24.0000 Each(s)

RivnuT

Pick:

Qty Part Number

Description

Batch

10

NAS1330C3KB166

Insert

M103954

m.l./BR

15.0

NAS1329C4KB140

INSERT



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

PHENOLIC WASHER

batch:

M104652

m.l./BR

16.0

NAS1515H3L

WASHER



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

PHENOLIC WASHER

batch:

M104652

m.l./BR

17.0

AN960C10L

washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

WASHER

batch:

M106843

m.l./BR

18.0

NAS1515H4L

WASHER



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

WASHER

M105408

m.l./BR

19.0

AN960C416L

WASHER



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

WASHER

batch:

M105793

m.l./BR

20.0

MS27039C109

SCREW



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

SCREW

batch:

M117831

m.l./BR 07/11/07

(1X)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: PD Date: 21/11/07
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 05/11/2007 2:31:54 PM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 32235

Part Number: D3391013

Job Number:



Seq. #:

Machine Or Operation:

Description :

21.0

MS27039C408

SCREW



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

SCREW

batch:

M17831

m-h/BK

22.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Assemble as per dwg D3391

BK/m-h

07/11/07

23.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

check ready

8/2/07

24.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

N/A

no stock
assembled on the

25.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

D 07/11/07

Job Completion



U 07-11-07

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Monday, 5/7/2007 3:25:16 PM
Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: MID TUBE ASSEMBLY
Job Number	: 32235		
Estimate Number	: 10469		
P.O. Number	:	Part Number	: D3391023
This Issue	: 5/7/2007 S.O. No. :	Drawing Number	: D3391 REV F
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: 1/1 Type : LANDING GEAR	Drawing Revision	: F
Previous Run	: 32234	Material	:
Written By	:	Due Date	: 6/10/2007 Qty: 1 Um: Each
Checked & Approved By	: <u>JA 07.05.07</u>		
Comment	: Est. A 05.10.20 New Issue KJ/EC		
	: Est. B 06.02.10 ECN773 dwg rev.D EC		
	: est C 07.03.20 rev F dwg EC		
	: est D 07.03.28 re-format EC		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D25001100	Skidtube Extrusion
-----	-----------	--------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)
SKIDTUBE EXTRUSION

Pick:

Qty	Part Number	Description
1	D2500-1-100	Extrusion

Batch

B24593

DP

7-5-25

2.0	D3391021	Fwd Tube Assembly
-----	----------	-------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Fwd Tube Assembly

Batch:

33630

DP

7-11-6

3.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1
-----	----------------	-------------------------



Comment: LANDING GEAR RESOURCE 1

1-Cut tube to finish length as per Dwg D3391

2-Identify as D3391-023

3-Drill pilot holes using DT8796 (Do not drill "B" holes) and drill only 1 fwd saddle hole on one side only as per Dwg D3391

4-Open float bag holes 0.257" as per Dwg D3391

5-C'sink float bag holes as per Dwg D3391

6-Open remaining holes to Ø0.375" except for fwd saddle hole of detail "J"

DP
7-5-25

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries.

Date: Monday, 5/7/2007 3:25:16 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 32235

Part Number: D3391023

Job Number:



Seq. #:

Machine Or Operation:

Description :

- 7-Remove .030" from Fwd indexing Ridge as per Dwg D3391
- 8-Remove indexing ridge on Fwd & Aft end of skidtube as per Dwg D3391
- 9-Deburr
- 10-Drill #30 pilot holes using wearplate Jig DT8217 Identify Ø0.250" holes with paint marker,
- 11-Open wearplate holes of D3391-023 assembly detail section G-G to Ø0.250" (14 holes) as per Dwg D3391 and 2 holes in section Detail "J", do not open wearplate holes of section "J"
- 12-Open wearplate holes of D3391-023 assembly detail section H-H to Ø0.257" and c/sink (20 holes) as per Dwg D3391
- 13-Open .375" holes to .438" ***do not open fwd saddle holes***
- 14-Locate D3391-021 in D3391-023 at 9.00" (see view z-z)
- 15- Transfer drill one fwd saddle hole only to .188" dia, transfer drill all remaining fwd saddle holes using DT 8149 locating from previously drill .188" dia hole, using t-pins and clicos to ensure perfect allingment, open up previously tranfer drilled pilot holes in D3391-023/-021 to 0.438" dia. in D3391-021
- 16- Transfer drill 2 wearplate holes into D3391-021 using DT8217, locating from two previously drilled holes, drill remaining wearplate holes into D3391-021.
- 17- Locating from two fwd wearplate holes drilol remaining 6 wearplte holes in D3391-021 using DT8937
- 18- Open 2 fwd wearplate holes in D3391-023 to .250" dia.
- 19- Open 12 wearplate holes in D3391-021 to 0.257" dia.
- 20-Deburr and blow out all chips from inside tube

DP
7-5-25

2-11-5

4.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

5.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 5/7/2007 3:25:16 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 32235

Part Number: D3391023

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

7.0

D33891

Web



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

WEB

Pick:

Qty

Part Number

Description

Batch

1

D3389-1

Web

A/R

Sikaflex-241/-291

Sikaflex expire date:

Start: Time:

Finish: Time:

8.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

2-Bond web in place as per Dwg D3391 & QSI 015.

Adhere for 12 hours)

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

10.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

11.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

12.0

NAS1330C3KB116

Insert



Comment: Qty.: 20.0000 Each(s)/Unit Total : 20.0000 Each(s)

Insert

Pick:

Qty

Part Number

Description

Batch

20

NAS1330C3KB116

Insert

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 5/7/2007 3:25:16 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 32235

Part Number: D3391023

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

NAS1330C3KB166

INSERT



Comment: Qty.: 10.0000 Each(s)/Unit Total : 10.0000 Each(s)

RivnuT

Pick:

Qty Part Number

Description

Batch

10

NAS1330C3KB166

Insert

14.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Install inserts as per dwg D3391

touch-up holes in D3391-021 with alodine

15.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

Inspect each insert using DT8821

16.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

17.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



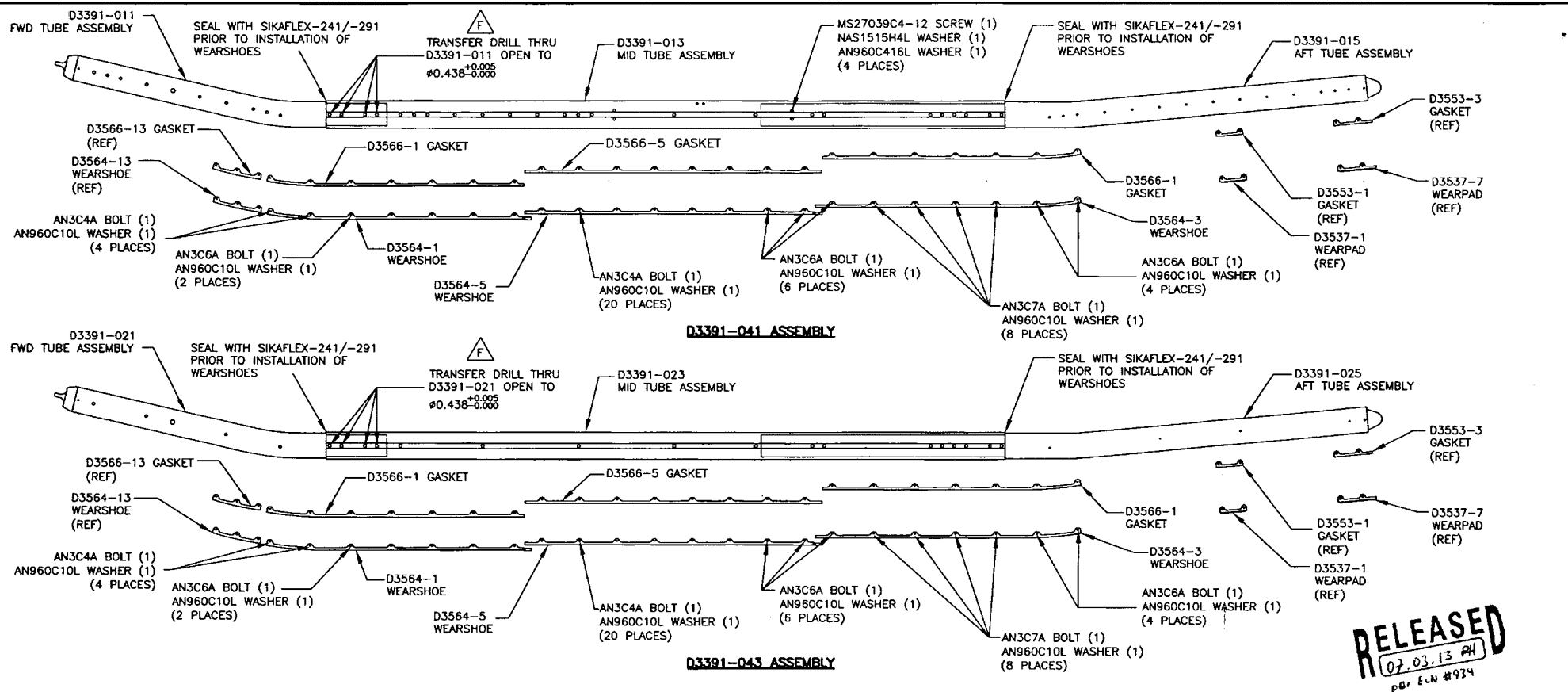
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D3391-041/-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

QTY	QTY	PART NUMBER	DESCRIPTION
041	043		
X	X	D3391-041	FLOAT SKIDTUBE ASSEMBLY
		D3391-043	FLOAT SKIDTUBE ASSEMBLY
1		D3391-011	FWD TUBE ASSEMBLY
1		D3391-013	MID TUBE ASSEMBLY
1		D3391-015	AFT TUBE ASSEMBLY
1	1	D3391-021	FWD TUBE ASSEMBLY
1	1	D3391-023	MID TUBE ASSEMBLY
1	1	D3391-025	AFT TUBE ASSEMBLY
1	1	D3564-1	WEARSHOE
1	1	D3564-3	WEARSHOE
1	1	D3564-5	WEARSHOE
2	2	D3566-1	GASKET
1	1	D3566-5	GASKET
24	24	AN3C4A	BOLT
12	12	AN3C6A	BOLT
8	8	AN3C7A	BOLT
44	44	AN960C10L	WASHER
4		MS27039C4-12	SCREW
4		NAS1515H4L	WASHER
4		AN960C416L	WASHER

GENERAL NOTES

- ALL DIMENSIONS ARE IN INCHES
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- FINISH: ACID ETCH AND ALDINE PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL 'E' SIZE HOLES (0.250-0.257) FOR WEARSHOE INSERTS. C/SINK 0.391/0.425 x 100' AS APPLICABLE AND INSTALL INSERTS EXCEPT WHERE INDICATED.

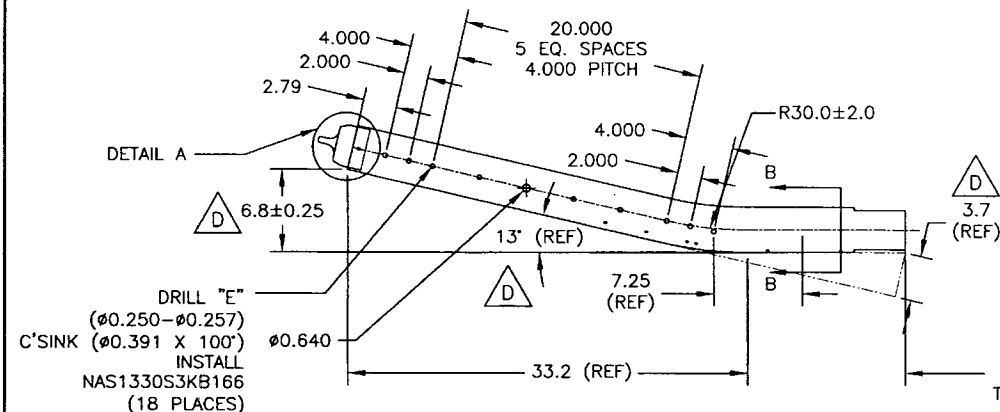
NO. 22235
WORK ORDER
WITHOUT NOTICE
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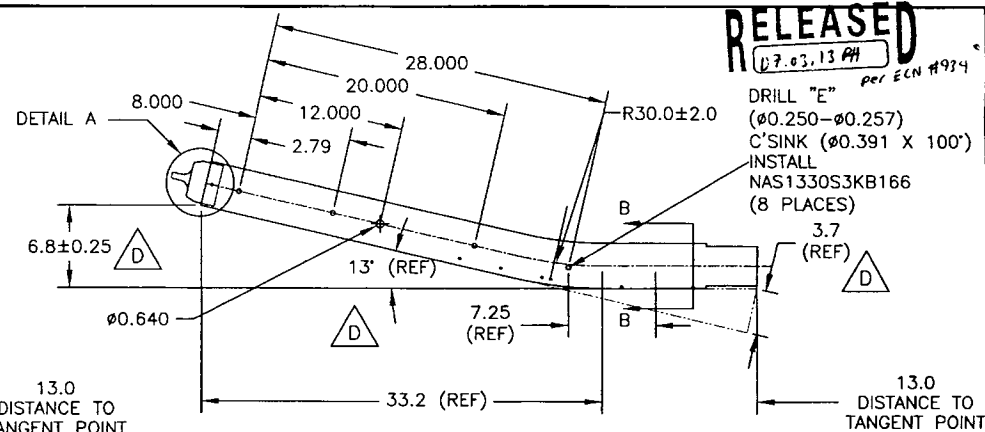
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F	07.01.18	ADD SS WEARSHOE, GASKET REMOVE FWD SADDLE HOLE -011/-021
E	06.04.25	CHANGE TOLERANCE,EASE MANUFACTURE
D	06.01.23	UPDATE TOLERANCE, CHANGE HOLE SIZE
C	05.09.27	LENGTHEN AFT EXTENSION
B	05.06.10	DRAWING UPDATES
A	05.02.07	NEW ISSUE
DESIGN	DRAWN BY	DART DART AEROSPACE USA, INC. FORT WADSWORTH, TX
CHECKED	APPROVED	DRAWING NO. D3391
DATE	TITLE	SCALE
07.01.18	412 FLOAT SKIDTUBE	NTS

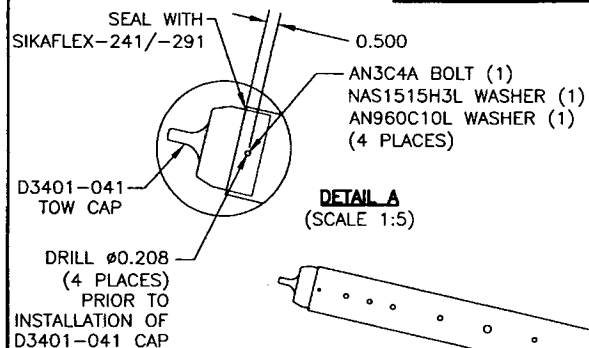
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07.03.13 AH



D3391-011 ASSEMBLY AND BENDING DETAIL



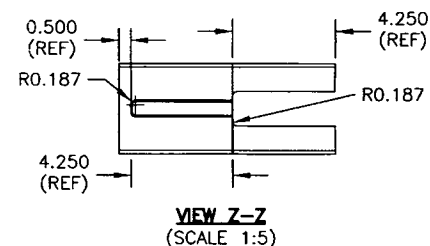
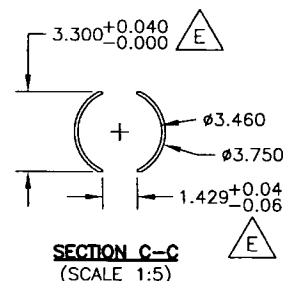
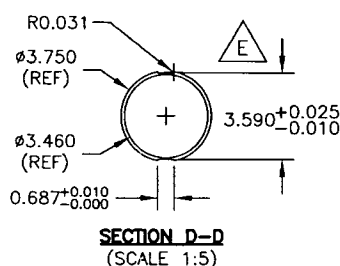
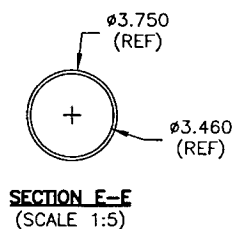
D3391-021 ASSEMBLY AND BENDING DETAIL



D3566-13 GASKET

D3391-011/-021 WEARSHOE ASSEMBLY

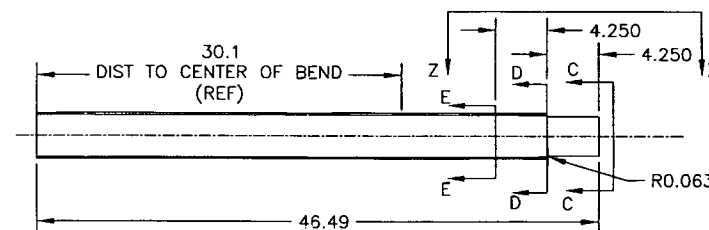
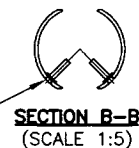
D3564-13 WEARSHOE



D3391-011/-021 FWD TUBE ASSEMBLY PARTS LIST

QTY - 011	QTY - 021	PART NUMBER	DESCRIPTION
X	X	D3391-011	FWD TUBE ASSEMBLY
		D3391-021	FWD TUBE ASSEMBLY
1	1	D6013-047	FWD TUBE
1	1	D3401-041	TOW CAP
1	1	D3564-13	WEARSHOE
1	1	D3566-13	GASKET
10	10	AN3C4A	BOLT
4	4	NAS1515H3L	WASHER
10	10	AN960C10L	WASHER
30	20	NAS1330S3KB166	INSERT (OR NAS1330C3KB166)

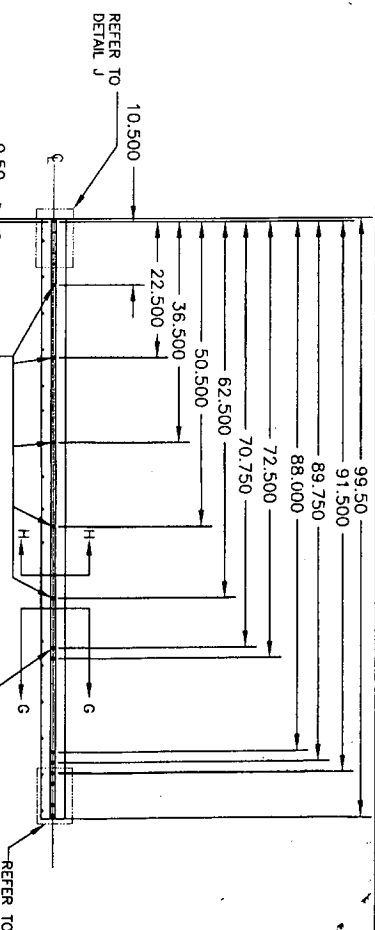
5
DRILL "E"
(Ø0.250-Ø0.257)
C'SINK (Ø0.391 X 100")
INSTALL
NAS1330S3KB166
(12 PLACES)



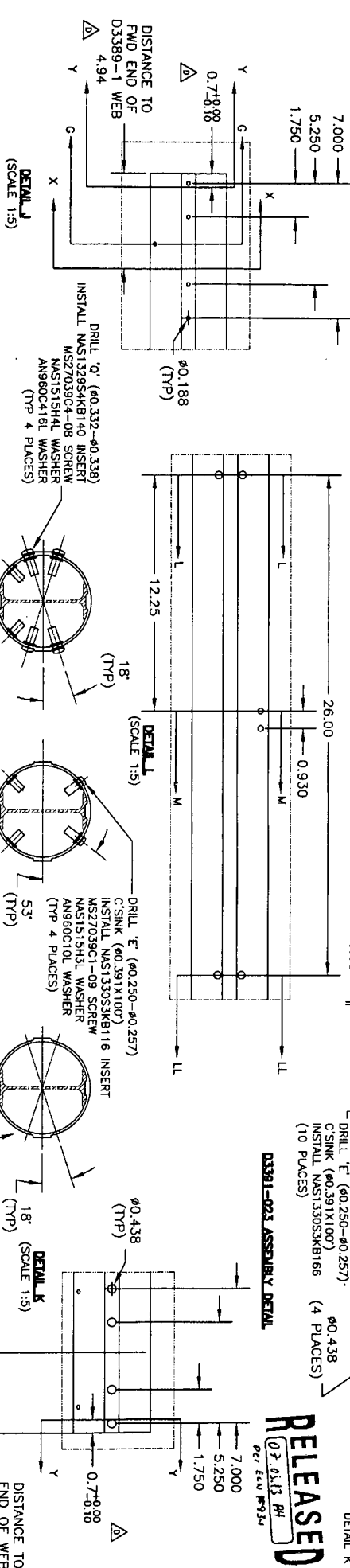
D3391-1 DRILLING AND CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)

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DATE 07.01.18		DRAWING NO. D3391		SHEET 2 OF 5
		TITLE 412 FLOAT SKIDTUBE		SCALE 1:10



03391-023 ASSEMBLY DETAIL



QTY -	PART NUMBER	DESCRIPTION
-------	-------------	-------------

QTY - 013	QTY - 023	PART NUMBER	DESCRIPTION
X		D3391-013	MID TUBE ASSEMBLY
	X	D3391-023	MID TUBE ASSEMBLY
1	1	D2500C-1-100	EXTRUSION
1	1	D3389-1	WEB
24	20	NAS1330C3KB116	INSERT (OR NAS1330C3KB116)
24	10	NAS1330C3KB166	INSERT (OR NAS1330C3KB166)
4		NAS1329C3KB140	INSERT (OR NAS1329C3KB140)
4		NAS1515H3L	WASHER
4		AN960C10L	WASHER
4		NAS1515H4L	WASHER
4		AN960C416L	WASHER
4		MS27039C1-09	SCREW
4		MS27039C4-08	SCREW

D3391-013/-023 MID TUBE ASSEMBLY

1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION

2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/--291 PER QSI 015




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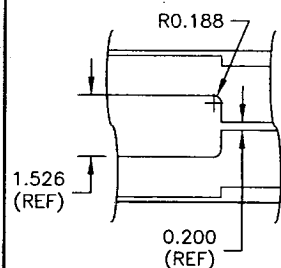
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SECTION X-X
(SCALE 1:2)

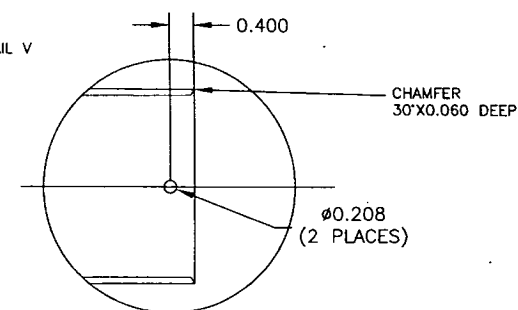
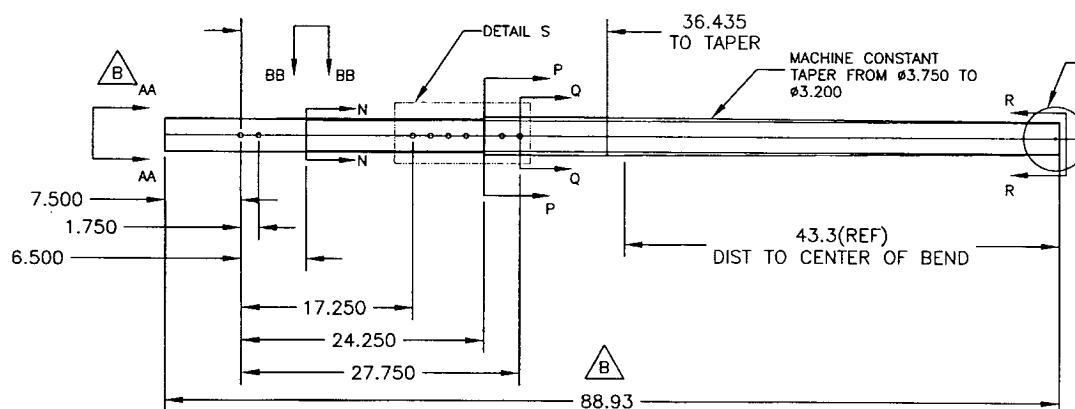
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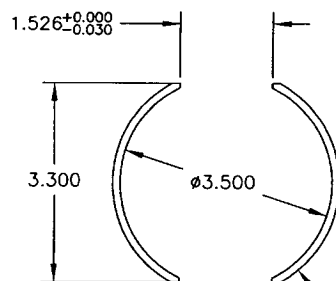


VIEW BB-BB
(SCALE 1:3)

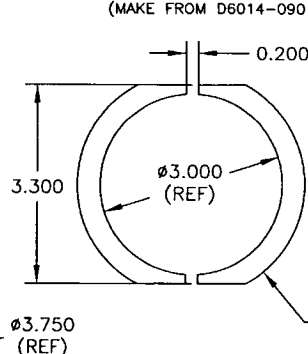


DETAIL V
(SCALE 1:2)

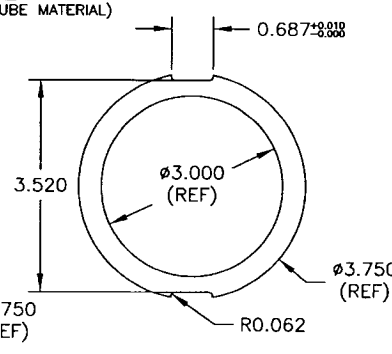
D3391-3 AFT DRILLING AND CUTTING DETAIL
(MAKE FROM D6014-090 SKIDTUBE MATERIAL)



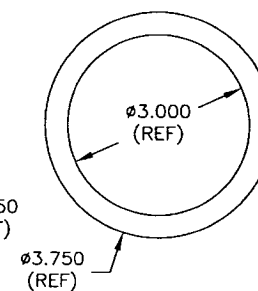
SECTION AA-AA
(SCALE 1:2)



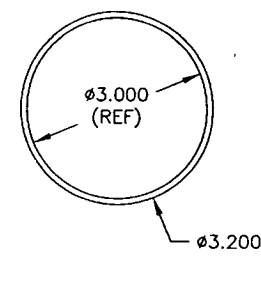
SECTION N-N
(SCALE 1:2)



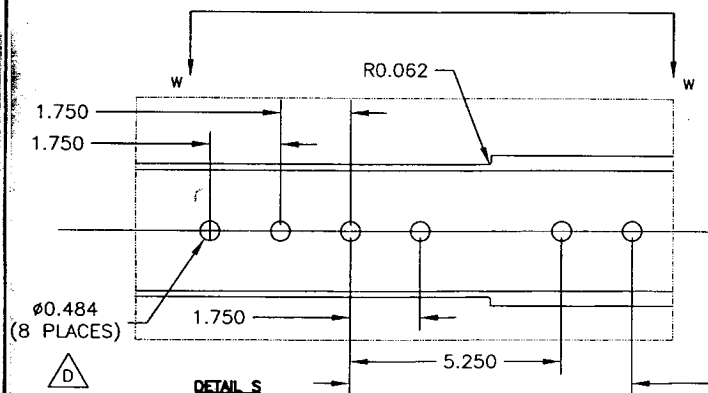
SECTION P-P
(SCALE 1:2)



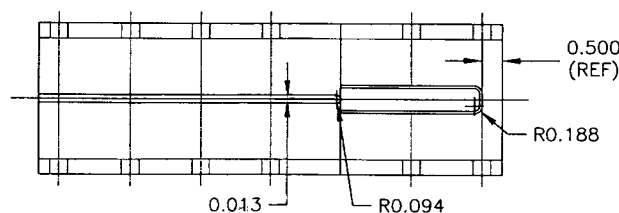
SECTION Q-Q
(SCALE 1:2)



SECTION R-R
(SCALE 1:2)



DETAIL S
(SCALE 1:3)



VIEW W-W
(SCALE 1:3)

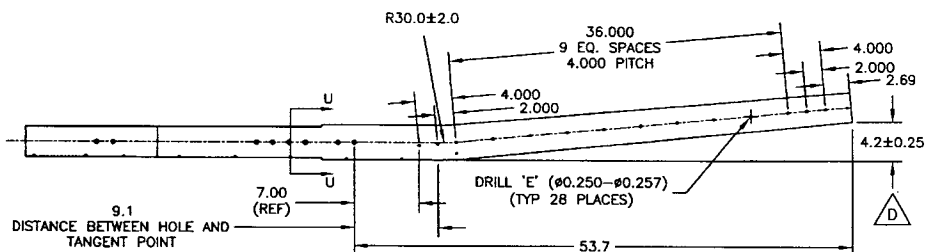
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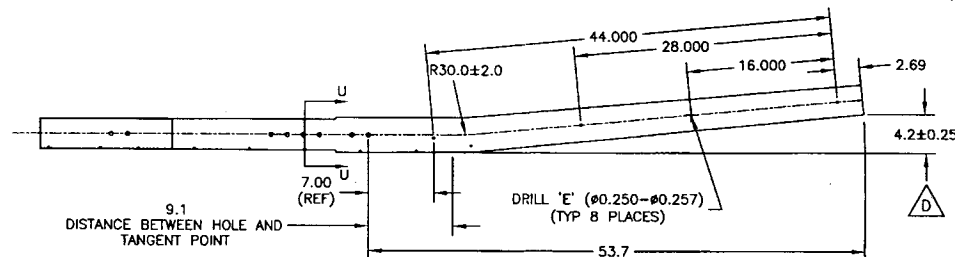
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DATE 07.01.18		TITLE 412 FLOAT SKIDTUBE	SCALE 1:12

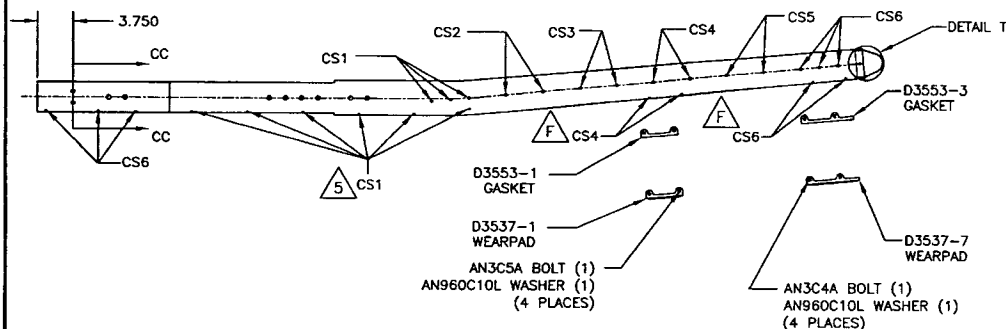
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per ECU #934



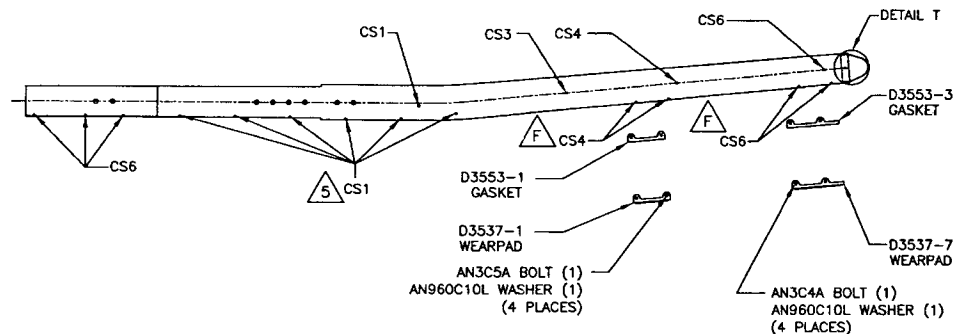
D3391-015 BENDING AND ASSEMBLY DETAIL



D3391-025 BENDING AND ASSEMBLY DETAIL



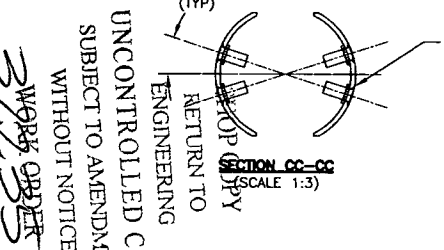
D3391-015 INSERT AND WEARPAD INSTALLATION DETAIL
(SEE TABLE)



D3391-025 INSERT AND WEARPAD INSTALLATION DETAIL
(SEE TABLE)

D3391-015/-025 AFT TUBE ASSEMBLY PARTS LIST

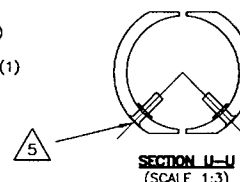
QTY - 015	QTY - 025	PART NUMBER	DESCRIPTION
X	X	D3391-015	AFT TUBE ASSEMBLY
		D3391-025	AFT TUBE ASSEMBLY
1	1	D6014-090	AFT TUBE
1	1	D2646	AFT CAP
1	1	D3537-1	WEARPAD
1	1	D3537-7	WEARPAD
1	1	D3553-1	GASKET
1	1	D3553-3	GASKET
18	14	NAS1330S3KB366	INSERT (OR AES10KB366)
4	2	NAS1330S3KB316	INSERT (OR NAS1330C3KB316)
8	6	NAS1330S3KB266	INSERT (OR NAS1330C3KB266)
4		NAS1330S3KB216	INSERT (OR NAS1330C3KB216)
16	12	NAS1330S3KB166	INSERT (OR NAS1330C3KB166)
4		NAS1330S4KB151	INSERT (OR NAS1330C4KB151)
6	6	AN3C4A	BOLT
4	4	AN3C5A	BOLT
2	2	NAS1515H3L	WASHER
10	10	AN960C10L	WASHER



C'SINK AND INSTALL NAS1330S3KBXXX IN HOLES MARKED CS1-CS6 AS FOLLOWS

HOLES MARKED	QTY - D3391-015	QTY - D3391-025	C'SINK	P/N
CS1	18	14	Ø0.425	NAS1330S3KB366
CS2	4		Ø0.391	NAS1330S3KB366
CS3	4	2	Ø0.391	NAS1330S3KB316
CS4	8	6	Ø0.391	NAS1330S3KB266
CS5	4		Ø0.391	NAS1330S3KB216
CS6	16	12	Ø0.391	NAS1330S3KB166

DRILL 'Q' (Ø0.332-Ø0.338)
C'SINK (Ø0.529X100")
NAS1330S4KB151 INSERT (1)
(4 PLACES)



AN3C4A BOLT (1)
NAS1515H3L WASHER (1)
AN960C10L WASHER (1)
(2 PLACES)
DETAIL T (SCALE 1:3)
SEAL WITH SIKAFLEX-241/-291

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REV EGN #734

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DATE 07.01.18	TITLE 412 FLOAT SKIDTUBE	REV. F SHEET 5 OF 5 SCALE 1:12

